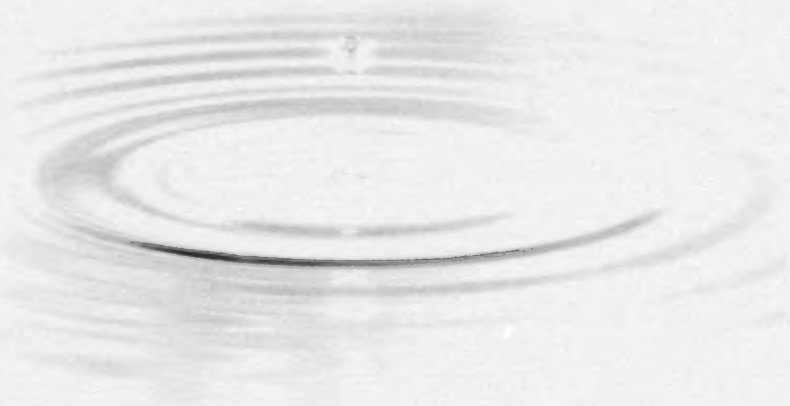
NWT Water Stewardship Strategy Implementation Workshop

December 9, 2013

Yellowknife, NT

Summary Report



Introduction

Aboriginal Affairs and Northern Development Canada (AANDC) and the Government of the Northwest Territories, Department of Environment and Natural Resources (GNWT ENR) invited water partners and other interested organizations to discuss the implementation of *Northern Voices, Northern Waters: NWT Water Stewardship Strategy* (Water Strategy) and *NWT Water Stewardship: A Plan for Action (2011-2015)* (Action Plan) at the Water Strategy Implementation Workshop on December 9, 2013.

The Water Strategy Implementation Workshop provides an opportunity for water partners to discuss implementation activities and progress to date (Key to Success 1.1 F).

The Water Strategy Implementation Workshop was followed by the NWT Environmental Monitoring Annual Results Workshop[1] hosted by AANDC (Cumulative Impact Monitoring Program–CIMP), Department of Fisheries and Oceans and GNWT-ENR from December 10-12, 2013.

The NWT Environmental Monitoring Annual Results Workshop provides a platform for NWT water partners to report on progress at regular intervals (Key to Success 1.3.A in the Action Plan).

These collaborative workshops are a valuable way to exchange and gain knowledge about water-related initiatives and to build relationships with existing and potential new water partners. To view previous workshop reports on the development and implementation of the Water Strategy, visit: www.nwtwaterstewardship.ca/?q=publications.

Participants

Water partners, including members of the Aboriginal Steering Committee, Aboriginal, federal and territorial government representatives, northern regulatory boards and agencies, academic institutions, environmental non-government organizations and other interested organizations, attended the Water Strategy Implementation Workshop. See Appendix A for a list of participants.

Workshop Objectives

The objectives for the workshop were:

1) Discuss implementation of priorities identified at the January 2013 Water Strategy workshop.
2) Identify indicators to assess progress on the implementation of the Water Strategy (2011-2015) that can be incorporated in annual internal reviews and larger external reviews (currently planned for 2015).

[1] To access the report, go to:
http://sdw.enr.gov.nt.ca/nwtdp_upload/Research_Results_Workshop_report_140129.pdf

3) Discuss successful approaches for building capacity to conduct water monitoring and explore alternative approaches for NWT communities.
4) Set priorities and targets for Water Strategy implementation in 2014.

Workshop Summary

The workshop was divided into three main sections:

1. Update on Implementation
2. Evaluating the Water Strategy
3. Moving Forward into 2014

The day started with welcoming remarks from Ernie Campbell, Deputy Minister of ENR, and Stephen Traynor, acting Regional Director General, AANDC.

1. Update on Implementation

After welcoming remarks, the day began with an update on implementation activities. Additional updates on research and monitoring projects related to Water Strategy implementation were presented during the NWT Environmental Monitoring Annual Results Workshop the following day.

Devolution and Water Management

Kevin Campbell (ENR) provided an update on Devolution and Water Management in NWT, including an overview of the current AANDC responsibilities, such as the management of inland waters, which would devolve to the GNWT on April 1, 2014. Examples of specific tasks that would devolve include:

- The review of water licence applications
- Type A water licence Ministerial decision processes
- Management of the Taiga Environmental Laboratory
- Managing diamond mine environmental agreements
- Conducting the NWT environmental audit

AANDC will retain some responsibilities on federal lands that are not part of the transfer, such as class 1, 2, and 3 waste sites under the Contaminants and Remediation Directorate, while small waste sites (schedule 8) will be transferred to the GNWT.

AANDC staff are being devolved to ENR (includes Water Resources staff), Industry, Tourism and Investment (ITI), and a new Lands department. A total of 123 job offers were made to AANDC employees and 120 were accepted with a start date of April 1, 2014.

Question from Water Partners:

How smooth is the transition going to be in terms of ground level work? An example was given regarding the involvement in environmental assessments, where AANDC has been very active and thorough in their reviews to date, while GNWT has been perceived to be less active throughout the assessment process.

There are currently a number of implementation committees to help ensure the process is smooth. There will be consistency at the ground level because the same people working on water licences and environmental assessments at AANDC will continue to do so at GNWT.

Community-based Monitoring Update

Erin Kelly (ENR) led the update on community-based monitoring (CBM) initiatives under the Water Strategy. During the development of the Water Strategy, the desire for community involvement in water monitoring was made clear. ENR's CBM programs are designed to answer questions that communities have about their water. Some questions are specific to communities and some are about the health of upstream water.

Examples of community questions and concerns are:

- Can we drink the water?
- What is in the water?
- Can we eat the fish?
- What are the cumulative effects of multiple stressors?

The largest CBM initiative coordinated by ENR is the *NWT-wide Community-based Water Quality Monitoring Program*. Before the program started in 2012, some community members noted that they saw changes in the water in between grab samples. ENR therefore decided to install YSI sondes as part of the program, to measure basic water quality parameters every 2-4 hours for the ice free season. They also installed two passive samplers—the polyethylene membrane devices (PMDs), which measure dissolved hydrocarbons, and diffusion gradients in thin-films (DGTs), which measure dissolved metals including mercury. Grab samples are also collected to measure 75 different parameters, and the results can be compared to what is measured with the sondes and the passive samplers for quality assurance and control. Grab sample results can also be compared to results from other long-term monitoring when sampling has occurred nearby.

This CBM program has grown from zero to 20 communities in two years, and it is supporting the work that communities want to do, with the goal of independent monitoring if the community chooses to do so in the future. Many partnerships are in place to make this program a success, including George and Mike Low—Dehcho Aboriginal Aquatic Resource and Oceans Management Program (AAROM), Laurel McDonald (ENR Sahtu), and Paul Jones (University of Saskatchewan).

Paul Jones (University of Saskatchewan) explained their involvement in CBM activities in Fort Smith and Fort Resolution, as part of the undertakings of the Slave River and Delta Partnership and the Slave Watershed Environmental Effects Program (SWEEP). SWEEP has been focusing on fish (last year), invertebrates and ice. Invertebrates are at the base of the food chain and need to be better understood. Work on ice dynamics in the Slave River and Delta is being completed. The specific funding is for two years, and the goals is that communities will be the core of an ongoing aboriginal-led aquatic cumulative effects monitoring program.

George Low and Mike Low (Dehcho AAROM) talked about the AAROM program in the Dehcho briefly. The AAROM program is funded by Fisheries and Oceans Canada. In the Dehcho region, this monitoring program includes monitoring fish and water. AAROM has built strong relationships with the communities in the Dehcho. AAROM and ENR have developed a partnership that has existed since 2012 to support the larger *NWT-wide Community-based Water Quality Monitoring Program*. As part of the AAROM program there are monitoring activities taking place in each community with residents that are hired to be monitors. The capacity is there but it needs to continue to be supported and built upon. To avoid duplication, ENR funds AAROM to conduct water quality monitoring with Dehcho communities.

Peter Redvers, a consultant working for the Dehcho communities, explained that AAROM provides the opportunity for the communities to access to their own resource people, to be advocates on their own behalf, and to help develop capacity skills. AAROM provides a regional foundation for other activities to be successful. A local coordinator was hired in Trout Lake (partially through CIMP funding), and ENR staff helped with sampling and training. Through various funds a full-time environmental coordinator position is being developed to have an active and meaningful role and ability to liaise with different organizations and agencies.

Erin Kelly ended the CBM update by talking about the importance of getting the results back to communities to use for their decision making. There have been community and regional meetings and conference calls, and a booklet with monitoring results from 2012 is being developed for distribution along with a calendar focusing on 2012 CBM results. ENR wants to make sure the people who want the results are getting them in a way that they can use and understand. ENR is open to ideas of how the department can make the information more available to a broader audience.

Update on Water Transboundary Negotiations with Alberta

An update on the negotiations to establish a transboundary water management agreement with Alberta was provided by Annie Levasseur (AANDC), Meghan Beveridge (ENR) and Erin Kelly (ENR). It is a priority for the NWT to establish this agreement. GNWT and AANDC are continuing negotiations with Alberta, and once the agreement is complete, negotiations will take place with British Columbia and Saskatchewan and the existing Yukon-NWT agreement will be revisited. It is also the intent to negotiate an agreement with Nunavut. After April 2014, in accordance with the Land and Resources Devolution Agreement, AANDC will no longer be a part of the transboundary water negotiations process.

Negotiation of the NWT-Alberta agreement is following an interest-based process, where both Alberta and NWT put forward interests, rather than positions, and options are jointly developed that meet both parties' interests. The agreed-upon options will make up the agreement. Between September 2011 and June 2013 the two jurisdictions shared information and preliminary interests and discussed options. An Intentions Document is being developed to outline the commitments that will be in the draft agreement. Once outstanding issues are resolved, the Intentions Document will be finalized and further public engagement and Aboriginal consultation will take place to inform the final agreement in 2014.

The NWT negotiation team began the NWT-Alberta negotiations with five target outcomes:

- Contribute to sustaining ecological integrity of the Mackenzie River Basin
- Respect Aboriginal and treaty rights
- Have an agreement that evolves with new information and as circumstances change
- Be anticipatory and proactive
- Improve binding and cooperative mechanisms

Traditional knowledge is very important and included in both the transboundary negotiations as well as community-based monitoring initiatives. Ways to synthesize traditional knowledge and western science, such that these different approaches can together inform decision making, is constantly improving and evolving.

The Intentions Document will contain commitments for surface water quality, quantity, groundwater and biological components, with aspects addressing air deposition. Ongoing monitoring will be crucial to implementing the agreement. A cooperative management approach, called Risk Informed Management, will lead to classification of each water body that crosses the border based on risk from development and natural factors. Parties will share information, notify and consult each other prior to decision-making that might affect the ecosystems of the other Party.

The key issues that still need to be resolved are:

- how much water Alberta can use and not return to the basin
- water diversions out of the Mackenzie River Basin
- timing for setting site-specific water quality objectives (before or after signing the agreement)
- monitoring under the agreement
- what actions will be required if objectives are not met at the border

Engagement on water issues and the mandate for the transboundary water negotiations started with the development of the Water Strategy in 2008. Public engagement and formal consultation with the Aboriginal governments on the development of negotiation positions began in August 2012. Between December 2012 and March 2013, 8 regional workshops were held across the NWT to discuss options and technical issues. Input from the workshops, including local and traditional knowledge, was considered in the negotiation process. Throughout this process the Aboriginal Steering Committee (ASC), who guided the development of the Water Strategy, has regularly been updated and provided input into the negotiations process. Once the Intentions Document is ready, the Aboriginal consultation process will continue and the public will be engaged.

Questions from Water Partners:

1. *When is the Intentions Document expected to be sent out for consultation? What are the details of the consultation that will occur once the draft agreement is available?*

   There are a few issues that need to be addressed before the Intentions Document is ready. The aim is for a spring signing of the agreement following fulfillment of consultation obligations.

2. *What would be the size of this document and would it be plain language?*

   The main document is approximately 30 pages including appendices, and we are intending to develop a plain language summary.

3. *With respect to the amount of water Alberta can withdraw, is the issue with diversion? If a 1% cap is set would this include both use and diversion, or is diversion on top of or within the 3%?*

   A threshold or cap that is set for the Slave would be focussed on consumptive use not withdrawals. Discussions are taking place about whether diversions (which are consumptive) would be included within the threshold/cap.

4. *On the matter of site-specific water quality objectives, with development increasing in Alberta, if an objective is reached or exceeded, what authority does the NWT have to act?*

   The Risk Informed Management approach would categorize rivers that cross the border based on risk from development and traditional use, among other factors. On waterbodies with no or low development (level 1) existing management, including monitoring, will continue as is. If there is more development (level 2), a learning plan, which includes monitoring, will be put in place. If there is a greater level of development and risk (level 3), like on the Slave River, site-specific water quality objectives would be developed (not Canadian Council of Ministers of the Environment (CCME) guidelines) and land claims provisions would be included in the considerations. If site-specific water quality objectives are not met, then steps must be taken to bring it back to level 3 within a defined period of time. Discussions are ongoing as to what will happen if jurisdictions do not do what they agreed to in the Risk Informed Management approach.

5. *With respect to the quantity of flow versus the timing of flow, is there the ability to control annual volume to ensure it is maintained?*

   There is a threshold (1 - 3%) currently under discussion for consumptive use that would be protective of the needs of the aquatic ecosystem. Looking at projected development, it is very unlikely that Alberta would ever reach even 0.7% consumptive use of the Slave River. Alberta knows they need to meet the agreed threshold at the border (and so the annual volume must be met). NWT is watching progress with the Alberta-British Columbia agreement to ensure that it does not affect the Alberta-NWT agreement.

6. *If Alberta won't be using more than 0.7%, why do they want to negotiate up to 3%?*

   Other transboundary agreements in Canada to which Alberta is a party (see, for example, the Master Agreement on Apportionment that deals with waters that are shared between Alberta, Saskatchewan and Manitoba) deal with 50% consumptive use so the fact that 1-3%

consumptive use is being discussed is very good. The land claims wording ("substantially unaltered as to quality, quantity and rate of flow") helped the NWT to negotiate the water quantity threshold down to 1-3%.

7. *Is the 1-3% in regards to diversion?*

In NWT's view, the 1-3% threshold would include all consumptive uses, including diversions should they be allowed (this is under discussion). However, NWT's interest is in no out of basin water transfers and we are negotiating on that basis.

Remote Sensing and Information Management

An update on water-related remote sensing projects in the NWT was provided by Paul Adlaka (Centre for Cold Oceans Resources Engineering (CCore)). CCore is a non-profit engineering company working with the GNWT to explore how remote sensing can support water-related monitoring. Paul provided an overview of remote sensing uses and the potential challenges.

The *Cumulative Impact Monitoring Program Implementation Remote Sensing* study (CIRS) (June 2013) explored questions such as: what areas can remote sensing help with and how can long-term programs be developed to look at different types of analyses? Caribou was the focus, however, and water-specific information could be explored in more detail in the future.

There is limited return for investment in water quality monitoring using remote sensing, except with algal blooms, suspended sediments/turbidity, temperature, chlorophyll. The challenges are due to resolution and frequency of the measurements. Water quantity monitoring can be done better by using remote sensing and can generate more information. Water-level correlation can be monitored over a number of years and can be compressed into time scales. River and lake ice can be monitored by satellite to determine potential for flooding and freeze up/break up.

To determine if remote sensing should be used in long-term water monitoring programs, indicators must be examined and stakeholders engaged to determine what is important to them.

Communication and Engagement and Information Sharing

Michele Culhane (AANDC) provided an update on initiatives related to communication, engagement, and information sharing. In the Action Plan, Keys to Success related to communication and engagement can be found under *Work Together* 1.3. Implementation updates for 2013 are:

- The www.nwtwaterstewardship.ca website was released April 2013 capturing all aspects of the Water Strategy. Please provide any comments to help make it more user-friendly.
- The *NWT Water Stewardship Strategy Implementation Report: April 2011-March 2013* and the NWT Water Stewardship Report Card were released late summer 2013, highlighting successes to date and areas for improvement. The Report Card was sent to all NWT mailboxes.
- Promotional/educational activities took place during Canada Water Week in March 2013, and included school outreach in various communities (drinking water curriculum), an art contest (including quotes from elders), an event at the Snow Castle, and public

presentations. GNWT and AANDC staff participated in Rivers to Oceans Day in Yellowknife in June 2013.

- A calendar focusing on source water protection was published and widely distributed in 2013. The focus of the 2014 water calendar will be community-based monitoring results.
- A communication and engagement plan for water partners was distributed in December 2013 following a review by the Aboriginal Steering Committee and a working group including staff from AANDC, ENR, Aurora Research Institute and Aurora College. The plan is for internal use by water partners and provides key messages that can be used when developing engagement activities, products and tools linked to water stewardship.

AANDC provided an update on implementation related to water regulatory and enforcement processes (*Use Responsibly 3.1*) included the joint release of the *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT* in November 2013 by AANDC and the Land and Water Boards of the Mackenzie Valley. These guidelines are geared to industry and reviewers of closure plans. They include expectations for closure, the requirements for engagement, a template for a closure plan, and technical considerations for reclamation including detailed northern considerations. The Land and Water Boards are also developing supporting guidelines for water and effluent quality management for industry.

Implementation updates on information sharing (mainly under *Work Together-Information Management 1.2)* included:

- The NWT Water Monitoring Inventory (relevant for Keys to Success 1.2 D, 2.1.A, and 2.1 F) was developed to compile general information on existing water quality and quantity monitoring programs and was released November 2013. Examples of water monitoring programs include: community-based monitoring, industry compliance monitoring and long-term federal government monitoring. The focus was on monitoring and only a limited amount of water-related research was included in the inventory. This is the first version and it will be updated regularly. The inventory is on the website along with a map of the monitoring locations.
- AANDC Water Monitoring reports – The Slave River water and suspended sediment quality report summary was released last year. AANDC is in the final stages of completing the Hay River and Mackenzie River water quality reports and plain language summaries.
- Information sharing also takes place through the NWT Discovery Portal. The portal is jointly managed by CIMP and ENR Centre for Geomatics, and all CIMP funded research project reports can be found there. See nwtdiscoveryportal.enr.gov.nt.ca for more information.
- Lodestar, a water monitoring database system used by AANDC Contaminants and Remediation Directorate (CARD), is now being introduced in the Water Resources Division. The intent is to expand outside of AANDC. It is an online monitoring database system and tool for database managers to store, retrieve and archive data and it can be linked to a geographic information system. There will be a copy of Lodestar made for the GNWT and the original will remain with AANDC CARD. It is a password protected system. It is hoped that the data generated from community-based monitoring programs

(coordinated by ENR) will be uploaded to Lodestar to compare it to other data. Once data is validated and approved CBM results will be provided to communities in multiple ways.

2. Evaluating the Water Stewardship Strategy

The second session at the Implementation workshop focused on the different evaluation processes that are included in the Action Plan. Break-out groups discussed potential performance indicators for evaluating the Water Strategy and the results from a recent CBM survey.

Internal / External Reviews of the Water Strategy

Katarina Carthew (ENR) presented on how the Water Strategy is currently being reviewed internally and the plan for an external review. *The NWT Water Strategy Implementation Progress Report April 2011-March 2013* (available on the website) includes an internal evaluation of the progress on implementing the different Keys to Success and action items, feedback from water partners, and suggestions for improvement. The widely distributed NWT Water Stewardship Report Card summarizes this internal evaluation. This is the third workshop to report on implementation of the Water Strategy, and was a critical time for water partners to discuss the different mechanisms for evaluating the success of implementation activities. Evaluations ensure accountability and can demonstrate tangible results of implementation.

An external review of the Water Strategy will take place in late 2014 and the results will inform the development of a new action plan in 2015. NWT water partners will be invited to review the structure and important questions for the review and provide input during the review process. Tangible and realistic indicators are needed that can be reported upon on an ongoing basis. For example, a checkmark indicating community-based monitoring is in place does not necessarily mean the goals for that action item have been reached. With performance indicators, actions are linked to the goals of Water Strategy.

Breakout Session - Potential Performance Indicators

During the breakout session, water partners were asked to provide examples of performance indicators and approaches for external evaluation, as well as guidance to improve water strategy activities and promote achievements to the public. Participants were asked to reflect on the Water Strategy goals while considering suggestions for performance indicators. The four breakout groups were:

- regulatory
- communication
- monitoring and research
- information management

Workshop participants were asked to circulate between breakout groups to answer the following questions under each theme:

- What questions should be asked during the external evaluation?
- What could be potential performance indicators?
- Do you know of relevant evaluations/reviews that could be of value?

Each group reported its results back in plenary – see Appendix B for complete flipchart notes.

Examples of performance indicators noted by participants included:

- Participation in different water-related programs, projects or events
- Projects that are connected to focus research areas
- Information access for communities including whether information is available in plain language
- How different information sources are used together in a meaningful way, including traditional knowledge and western science, such as remote sensing
- Completing surveys
- Number of visitors at relevant websites such as the NWT Water Stewardship Website
- Assessing if community capacity for water monitoring has increased
- Documenting how many questions are submitted by the public per year
- Assessing whether regulatory boards are considering the results of government and community-based water monitoring when making decisions

Capacity building in CBM - Survey Results
Jennie Vandermeer (ENR) provided the results from a recent survey conducted with communities involved in the *NWT-wide Community-based Water Quality Monitoring Program*.

ENR is now working on CBM with about 20 communities across the NWT. Community members involved in the program were asked to provide feedback on what worked and what could be improved for participating in the CBM program. The results will help continually improve the CBM program. Questions were sent to office staff involved in administration and coordination and to community members doing field work.

Questions included:

- Is there a common understanding about the CBM program in your community?
- Why is your community involved?
- How should program information be provided in your community?

Overall, the respondents stated that the program was important but communities were not fully aware of the purpose and the anticipated outcomes. Knowing community concerns were being examined gave some communities comfort, and there were positive comments about working with and learning from ENR and AAROM staff. Respondents provided suggestions for more public outreach/communication including public meetings, local radio, newspaper, information sessions during community feasts, adding to agendas for existing meetings, and plain language and more official languages communication. Several communities expressed the need for training to develop the capacity to take on local ownership of CBM, but recognized the need for ENR to be involved for the next few years.

During a breakout session, groups were asked to discuss the following questions:

- Is there a common understanding in your area about the different CBM programs taking place?
- What would be ways to provide information about the monitoring in your area?
- How is your organization involved in a CBM initiative?
- Why is CMB important to you?
- How do you think communities can move forward and take more ownership of these programs?
- Any suggestions for how to improve CBM initiatives in the NWT?
- Suggestions for how to review/ evaluate CBM programs in the NWT?
- Do you know of any reviews or evaluations that can be shared with water partners?

Many of the groups had comments about the lack of a holistic approach to the monitoring. Currently there is a focus on water quality and the CBM programs should focus more on additional indicators to holistically assess aquatic ecosystem health. Currently there are some initiatives under the Water Strategy, such as SWEEP, that include other indicators such as health of fish and invertebrates that can complement the current water quality monitoring.

There were also comments about the need for more local venues to discuss concerns and build the interest for CBM, to better reach out to school children using different educational tools, and to use already functioning frameworks or monitoring programs and not try to re-invent the wheel. See Appendix C for complete flipchart notes.

3. Moving Forward Into 2014

Priorities for 2014-2015: What do we do next?
Erin Kelly (ENR) led the discussion and noted that the Water Strategy and its Action Plan are extremely ambitious and that there are many important Keys to Success and Action Items. Focus has been on key priorities due to lack of capacity; therefore some action items will need to be carried forward to the next action plan if still deemed necessary.

Key priorities for 2013 included:

- Transboundary negotiations with Alberta and other neighbouring jurisdictions (AANDC/ENR co-lead)
- CBM (ENR coordinating)
- Source water protection initiatives including a 2013 calendar, which was distributed widely and was popular with communities (ENR lead)
- Communication and Engagement (AANDC/ENR co-lead)
- Regulatory initiatives including completion of guidelines with regulatory boards (AANDC/Regulatory Board co-lead)

Water partners were asked to provide input on the priorities for 2014 and how these could be accomplished collectively, as well as how partnerships could be strengthened for successful water stewardship in the NWT. This information will support the development of a new action plan.

A group discussion took place and a list of key priorities discussed for 2014 is summarized below:

- Implementing the Water Strategy in light of regulatory processes (environmental assessments and water licences) as federal responsibilities for water and land will be devolved to the GNWT (e.g., type A water licences will be approved by ENR);
- Ongoing community-based monitoring (CBM) will continue to help communities address water-specific concerns. However, CBM needs to be specifically defined so water partners are clear on its purpose (i.e., to answer community questions in an understandable manner);
- Defining methods/approaches for getting CBM results, and Water Strategy information in general, back to communities in a plain language format (e.g., 2014 water calendar has CBM results in plain language by regions);
- Using CBM results to help inform decisions (e.g., use with regulatory processes, water licence hearings, etc.);
- Completing the transboundary negotiations and agreement with Alberta and starting negotiations with British Columbia;
- Assessing Mackenzie River Basin-wide data and information (lots of basin-wide data will be shared once transboundary agreements are signed), and possibly developing common traditional knowledge indicators for the basin in collaboration with water partners;
- Continuing source water protection planning (a priority from a community perspective and a good way to build community capacity). Community members need to be adequately informed about and engaged in source water protection planning;
- Ensuring information/data is well managed, linked together, and accessible as more and more action items are completed; and,
- Implementing ENR's new water management responsibilities post-devolution and communicating broadly to NWT residents about these new responsibilities.

Appendix A: Workshop Participants and Agenda

Aboriginal Governments	
Leon Andrew	Sahtu Secretariat Inc.
Tim Heron	Northwest Territory Métis Nation
Peter Redvers	Sambaa K'e Dene Band
Charlie Barnaby	K'asho Got'ine Charter Community
Charles McNeely	K'asho Got'ine Charter Community
Regulatory Boards	
Rebecca Chouinard	Mackenzie Valley Land and Water Board
Industry, Environmental Non-Government Organizations and Others	
Alice Cohen	Acadia University
Lara Mountain	Ducks Unlimited
Sara Brown	NWT Association of Communities
Kevin Smith	Aurora College
Mathieu Lebel	World Wildlife Fund
Mike Low	AAROM Dehcho
George Low	AAROM Dehcho
Paul Jones	University of Saskatchewan
Jeff Short	Independent Consultant
Celine Gueguen	Trent University
Blair Carter	University of Waterloo
Paul Adlakha	C-Core
Nicole Andres	Imperial Oil
Government of the Northwest Territories	
Ernie Campbell – Opening Remarks	Deputy Minister of Environment and Natural Resources (ENR)
Catherine Gillis	ENR – Land and Water
Erin Kelly	ENR – Land and Water
Katarina Carthew	ENR – Land and Water
Ron Antoine	ENR – Field Support Unit
Jennie Vandermeer	ENR – Land and Water
Katherine Trembath	ENR – Land and Water
Meghan Beveridge	ENR – Land and Water
Evangelos Kirizopoulos	ENR – Geomatics
Mike Fournier	ENR – Policy and Strategic Planning
Brian Sieben	ENR – Climate Change Programs
Laurel Macdonald	ENR- Sahtu Regional office
Kevin Campbell	ENR- Devolution lead
Olivia Lee	MACA
Justin Hazenberger	MACA
Kristen Cameron	Informatics ENR/ITI
Federal Departments	
Stephen Traynor – Opening Remarks	AANDC – acting Regional Director General

Michele Culhane	AANDC – Water Resources Division
Annie Levasseur	AANDC – Water Resources Division
Bill Coedy	AANDC – Water Resources Division
Dawn Curtis	AANDC – Communications
Robert Jenkins	AANDC – Water Resources Division
Malcom Conley	Environment Canada
Lubaki Zantoko	AANDC- NWT Cumulative Impact Monitoring Program

NWT Water Stewardship Strategy
Implementation workshop
December 9, 2013

08.00-8.30 am	**Arrival and Registration**	*Katimavik Room A and B*
8.30-9.15	***Opening Prayer*** **Welcoming Remarks** **Agenda Overview**	
9.15-10.30	**I. Update on Implementation**[2] **Current priorities and new partnerships** *Devolution and Water Management* *Community-based Monitoring* *Transboundary Water Agreements* *Information sharing* *Regulatory updates* *Communication and Engagement*	
	II. Evaluating the Water Stewardship Strategy	
10:30-10:45	**Internal /External Reviews** *Overview of progress report* *Introduction of performance indicators*	
10:45-11:15	*Break-out groups* *Discussing potential performance indicators*	
11:15-12:00	*Group Discussion*	

[2] Some activities will briefly be discussed and a more detailed update will be provided on the 10th of December as part of the Joint NWT Environmental Monitoring Annual Results Workshop.

12.00 - 1:00pm	**Lunch (provided)**
1:00-1.15	**Capacity building in community based-monitoring** *Review and evaluation of the NWT- wide water quality community-based monitoring program*
1:15-1:45	*Break-out groups* *Approaches for ongoing capacity building in community-based monitoring in the NWT.*
1.45-2.30	*Group Discussion*
2.30- 4.00	**III. Moving forward into 2014** **Priorities for 2014-2015: What do we do next?**
4:00-4:30	**Summary** **Closing Prayer**

Appendix B: Break-out Session- Performance Indicators

Flipchart Notes

Research & Monitoring

- When, what, and where are you monitoring? Water Quality, Water Quantity and Water Flow
- Analysis of what (where and when) is being monitored
- Overlap of the monitoring
  - Are you aware of the monitoring that other organizations are doing?
- Monitoring in all types of water bodies/flow
- Monitoring background, reference areas, control areas (i.e. protected areas)
- Communicating research
  - Is the research and monitoring information available to residents, and how is it accessible?
- Language (information is provided in a variety of languages, visuals)
- Number of community people involved in community based monitoring
- What does a healthy and diverse ecosystem mean?
- Did you receive any questions (by the public and stakeholders) regarding the safety of the water and the monitoring of the water
- Response, consequences of a spill/ communication
  - Enhance monitoring?
  - Who does what if an event happens?
    - Within our government/NWT
    - In Alberta
    - Industries
- Participation in events
  - Participation during Canada Water Week
- Is all the data in one spot?
  - How can we progress to achieve this?
- Has the capacity increased (technicians, support for community-based monitoring)
- Have we determined what meaningful monitoring is?
- What is the baseline for 'healthy' and 'diverse' ecosystems throughout the year?
- Guidelines, establishing site specific guidelines
  - Require a lot of info/ data gathering
- Are we closer to establishing a baseline?
- Continuous monitoring
- Looking at the bigger picture:
  - Watershed reporting in addition to specific water bodies
  - Mechanisms for lending academics and consultants

  - Putting datasets together
  - Develop a 'bigger picture' based on information from smaller research and monitoring programs
  - Data sharing between organizations and jurisdictions
  - Mechanisms for people to talk to one another, share knowledge (traditional knowledge holders talk to other traditional knowledge holders) (communities talk to other communities)
  - Data →scientists →plain language to the people
- Target: Clear identification of indicators and thresholds that could be used to evaluate the health of an ecosystem
  - Need key indicators that summarize the health of the basin
    - Need to cost effective
    - Becomes a driver to filling any gaps
- Avoid the overlapping
- Focused research areas
- Research information going into one place (research council ensuring that it is being well utilized)
- Key indicators--> Triggers(thresholds → actions(responses)
  - Can include traditional knowledge indicators complimentary
- Get the traditional knowledge information
  - Mechanisms for people to share their information in real time
- Make sure info gets out to the communities(results)
- Incentive mechanisms for the communities to build up a database
- Traditional knowledge info→gather all kind of information (harvest, weather, etc.)
- Quantitative and qualitative data
- Coordinators in the communities to gather info.
- Regional wildlife workshops seem to be effective in information management. Through presentations, break out groups, participant feedback, etc.

Regulatory

- Land and Water Board's Monitoring and Performance Management for the Guidelines
  - Procedure/methods for evaluating end product
  - Three year evaluation plan
    - Performance criteria/method
    - Approval level required for changes → executive director and board committee
    - Online reviews "report on product" button
- Indicator → number and type of guidelines to govern water use
  - Quality/effectiveness of guidelines

- Process for federal/territorial guidelines evaluation → amount process
- Community-water licence → degree to which licence conditions are being monitored/enforced
  - Compliance/monitoring
  - Actually having a community water licence
  - Do they have the capacity? Is it worth it?
- Industry → Water Licence compliance
  - To what degree are conditions enforced
- Indicators for GNWT - Water Stewardship Goals
  - Referrals to EAS (i.e. number of referrals; will they take on this responsibility)
  - Recommendations made on water licence conditions (number of recommendations and type)
    - Plans associated with conditions
- Indication of capacity at community level to make recommendations
- Data/results driving a recommendation on a water licence condition or for guidelines/policy direction
- Presence of a guideline to inform water management. decision e.g. DFO protocols
- GNWT has water stewardship roles and should speak out on legislate amendments that impact water
  - To what degree is GNWT engaging with the federal government regarding legislative changes (Bill C-45)
- Indicator → Number of critiques of proposed federal legislative changes
- Number of references to the Water Strategy in other GNWT planning doc → shows it's a living doc
  - E.g. Mineral Strategy/ Landuse Framework
  - How many public statutes conflict with goals or mention the goals of the Water Strategy.
- Boards
  - Get info/docs/data in accessible shared formats
  - Once this is up and running, the quantity and the nature of info you would be using could be monitored → this being used re. Water Strategy
  - Web hits
  - Front and how is info being used by you (reviewers)
  - Number of NWT land & water use inspectors (staffing budget)
  - Inspections frequencies
  - Number of staff/budget of Aboriginal government staff
    - Indicates ability to engage in the regulatory process
- Ability of ENR to intervene independent of other GNWT departments/ without having to cater to other departments

- Does Land and Water Boards know that information generated by CIMP is out there to make decisions
  - Boards need to consider CIMP results
  - CIMP needs to show their info is being used in decision making
  - For the Water Strategy, would Land and Water Boards be informed about w quality monitoring → indicator
  - During guidance review→ are they checking to see if it is reaching community members
- What does super boards intend to do? What's going to drop out on social/cultural side?

Information Management

- Keys to success in Action plan
- How to store and share results
  - Results→Decision making
  - Discovery Portal
    - $ from CIMP (mandatory upload)
    - Linked to Aurora Research Institute→ Who is downloading info from portal?
    - Access to reports
- Environment Canada has a system→ link?
- Password protected info vs. public access
- Want to broaden users → promotion
  - Make mandatory to upload data
- Build analysis/synthesis of data info project requirements($$$)
- Western science and traditional knowledge = decision info tree *Baysian Belief Network*
  - Baysian statistics
- Can define outputs as plain language
- Done in Australia
- Human resources/capacity
- Continuity with analysis
- How to include traditional knowledge:
  - Community specific protocols, etc.
  - Research projects
  - Info package on traditional knowledge (to access)
  - Seek community input on guideline, policies, etc.
  - Review of traditional knowledge implementation (GNWTs role)
- Remote Sensing
  - Review of the use of remote sensing in water monitoring

        - Lots on vegetation some on ice but not much on water quality
        - Total Suspended Solids
    - Very little remote sensing done, barely scratching the surface
    - Getting this info out is an issues (other than reports), maps, visuals needed
    - Data: access and sharing is an issue can you get a license to share? (for satellite vendors)
    - Individual projects →monitoring program
    - Availability of data (long term) satellite malfunction?
    - Different vendors?
    - Inventory on Great Slave Lake mouth and Mackenzie River (overlap with CIMP?)
    - Plain language
    - Daily upload or annual upload of data?
    - Each agency has separate systems, need to bring this together
    - Create links → data managers
    - Real time
    - Takes too long to verify data
    - Scattered info everywhere, no point of contact
- Information portal – historical data
- Traditional Knowledge sharing on information portal is limited
- Can communities access Loadstar data? (Interpretation, analyzed format, liaison)
- Has this helped with decision making?
- How frequently is it being used?
- Water stewardship website traffic? Who are the main users?
- Have the community been informed properly
- Where is information coming from (specific parameters, location, etc.)?
- Need for resources to share info in plain language
- People need to know why they are asked to share traditional knowledge
- Explain to community why traditional knowledge is important to know and use

Communication

- Number of communities visited
- Ways to get info out to community members (more than meetings with core people)
    - Facebook
- How to get to whole community not just leadership & favourite people (their friends only)
- How does data get-out?
- Need to talk to each small group
- Assemblies (good way to get to lots of people and communities) but there is a need to follow up

- Can't assume band council passes info on
- Schools (K-12)
- Youth camps
- Survey of residents
  - Questionnaire
- Translation/interpreters
- Environmental coordinator/liaisons in each community --? Could help assess effectiveness
  - Interview community worker
  - Need to be qualified
  - Willing to learn and take initiative to become informed and inform
  - Manual explaining what job entails
- Explain big picture → Key concept, etc.
- Training workshops for community staff
- Environment and Natural Resources Technology Program (Aurora College) useful background for community staff
- Challenge when losing trained staff to mines
- Follow up with community workers
  - How are the programs working?
  - How much have the community and community workers learned?
- Interview residents, workers, and band councils
- Are there key pieces of info that external reviewers expect people to have?
- What are the priorities for what they want to hear about (prioritize) → fundamental issues
- Make sure GNWT(to the water partners) also hears from communities
- Involve communities where ongoing/community-based monitoring isn't happening
  - Connecting with those communities?
- Do people understand why the Water Strategy and community-based monitoring programs, and other programs are happening?
- Making sure elders have input
  - Losing languages
  - Less connection to the land
- Balancing scientific and traditional knowledge
  - Scientific knowledge confuses things
- Not going through steps(jumping around)
  - Understand the Water Strategy first and then develop community-based monitoring
- Explain why there are monitoring sites where they are and why there are not sites in each community
- Lots of emphasis on mainstreams

    - What about Jean-Marie River and others
    - Need to listen more to the communities
- How to get message to decision maker
    - Misunderstanding of who this is (not getting deep enough into communities)
    - Community posters
    - Go door to door
- Supposed to be able to generating information to enable local decision making
    - Desire for compensation for extra times
    - Honoraria
    - Gift cards
    - Compensation
- How many topics and how many times do they come up in meetings and session
- What and how frequently do topics come up in media?
    - Highlight areas where more work is needed
- Number of times invited to come into communities
- Number of people who attend those eetings
- Number of unanswered questions at meetings
- Multiple tools to get the message out
- Greater communities representation at meetings can get word out to even more people
- Diversity in representation (youth, teachers, other sectors)
- Information available on local radio station
- Too much expectation on one conduit
    - List of key messages; funding; anything
- Have a regional rep but could be a bottleneck
- Tools to help
    - People/information to refer to
    - Posters
    - Summary sheets
- Website hits
- Facebook page
- Radio announcements
    - A few times a week
    - Use CBC
    - Special request show
    - Public Service Announcements on specific topics
- Regional staff for people to go to
    - Pass on key info
        - Water monitoring
        - Safe levels
- Resources devoted to a communications plan

- Number of times an issue comes up
- Variety of ways used to communicate each idea
- Number of times attend/present at international/national conferences
- Annual surveys
- Fact sheets in many languages and have other organizations, e.g. SAOs, distribute them
- Encouraging communities to communicate and share and learn from each other
- Local radio ads/Should be in local languages

Appendix C: Break-out Session Approaches for ongoing capacity building in community-based monitoring in the NWT.

Flipchart notes.

- Getting everyone and interested parties to the table to discuss issues regarding water in the NWT
- Identify community champions
- In the regions, involve school kids using web-based teaching tools, science fairs, and hand games. School children can ask parents important questions.
- Search for local venues for information sharing, e.g. bingo
- How to apply for funding with multiple parties
- The wheel is already built by Slave River and Delta Partnership and CIMP's Pathway
- Moving beyond water quality and water quantity and take an ecosystem-based approach
- Provide training for communities for water licenses, like Wek'èezhii Land and Water Board is working with communities in the Tłı̨chǫ region
- Include Wildlife terms and conditions
- Follow-up with communities and provide continuity. One the ground presence can really help
- Connecting with Mackenzie Valley Resource Management Act and Canadian Environmental Assessment Act. Two different existing regulatory frameworks
- Challenges with structure of funding pots
- Advocacy
- Communities directing research
- How do we link all the different monitoring programs?
- Philanthropy.
- Understanding the scale of the projects
- How do we make sure everyone gets what they need and are more aware?
- Shift in academics, more focus on community concerns and engagement involvement. Still not perfect, but changing, i.e., CIMP multi-disciplinary projects (S. Kokelj and T. Lantz)

- Attempting to make links to actual decisions
- The Water Strategy is ecosystem and people focused. Not just about water, also about ecosystem health, fish and bugs
- In general, there is a mutual respect between researchers and communities. There is a clearly a shared love of land and the north. Researcher seems well aligned with priorities of community concerns
- Scotty Creek and Trail Valley have two of the longest-term hydrological and permafrost monitoring sites in the high latitude regions. These sites have recently expanded to include carbon and vegetation/ ecological monitoring to talk a more holistic ecosystem approach
- Consulting with communities about how they want research and monitoring to take place. What information/data they want to collect to answer questions / concerns that they have
- Effort to collect data for decision making
- Efforts (such as this meeting and other meeting this week) to avoid operating in "silos"- show information about projects underway, find opportunities to collaborate, avoid duplication. Good but still needs improvements
- Thinking about water from an ecosystem perspective
- Very important to get to know your community, add-ons to your research program to address community issues/concerns
- See how you would involve local people
- NWT CIMP-funded water-related research and monitoring programs, like Peel watershed